

● PRINTER RUSH ●
(PTO ASSISTANCE)

Application :	Examiner :	GAU :
<u>10/7/83 P</u>	<u>EVANS</u>	<u>2652</u>
From:	Location:	Date:
<u>JF</u>	<u>IDC</u> FMF FDC	<u>1-12-84</u>
Tracking #:		Week Date:
<u>10/7/83 P</u>		<u>10-9-84</u>

DOC CODE	DOC DATE	MISCELLANEOUS
<input type="checkbox"/> 1449	<hr/>	<input type="checkbox"/> Continuing Data
<input type="checkbox"/> IDS	<hr/>	<input type="checkbox"/> Foreign Priority
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<input checked="" type="checkbox"/> SPEC	<u>11-20-83</u>	

<p>[RUSH] MESSAGE: Please supply serial number & filing date on page 1, lines 2 & 3 of the Spec.</p> <p>THANK YOU</p>

<p>[XRUSH] RESPONSE:</p> <p><u>D</u>one</p>
<p>INITIALS: <u>Lay</u></p>

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 REV 10/04

101718, 214 11/20/03

HTIRC 02-006



SELF-ALIGNMENT SCHEME FOR ENHANCEMENT OF CPP-GMR

by

Jei Wei Chang, Chao-Peng Chen, Min Li, Kochan Ju

RELATED PATENT APPLICATION

This application is related to Docket No. HTIRC02-003, Serial No. 10/392,118,
10718373,
filing date 3/19/03 and to Docket No. HTIRC02-004, Serial No. ~~10718373~~, filing date
11/20/2003, all assigned to the same assignee as the current invention.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates generally to the fabrication of giant magnetoresistive (GMR) magnetic field sensors of a "current-perpendicular-to-the-plane" (CPP) configuration. More particularly, it relates to such a sensor that is geometrically patterned, using a single electron beam formed mask and a self-aligned double lift-off scheme, to lower its resistance and redistribute its current in a manner that increases sensor sensitivity and eliminates local hot-spots caused by excessive Joule heating.

2. Description of the Related Art